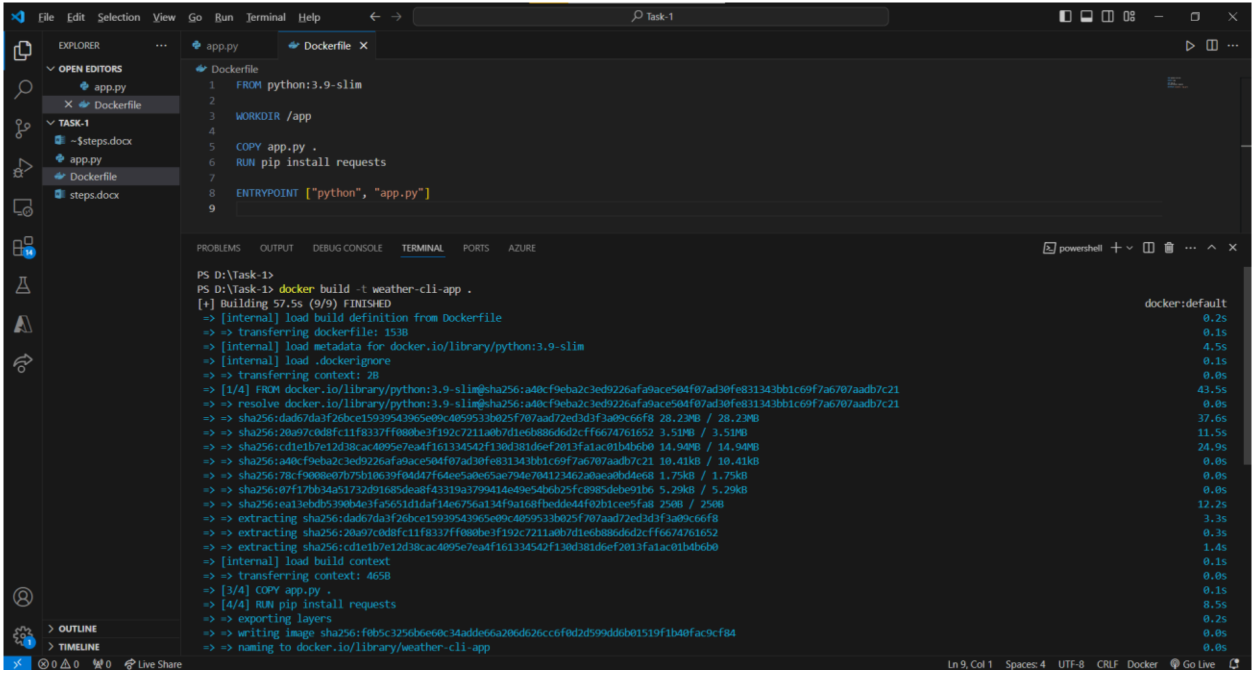
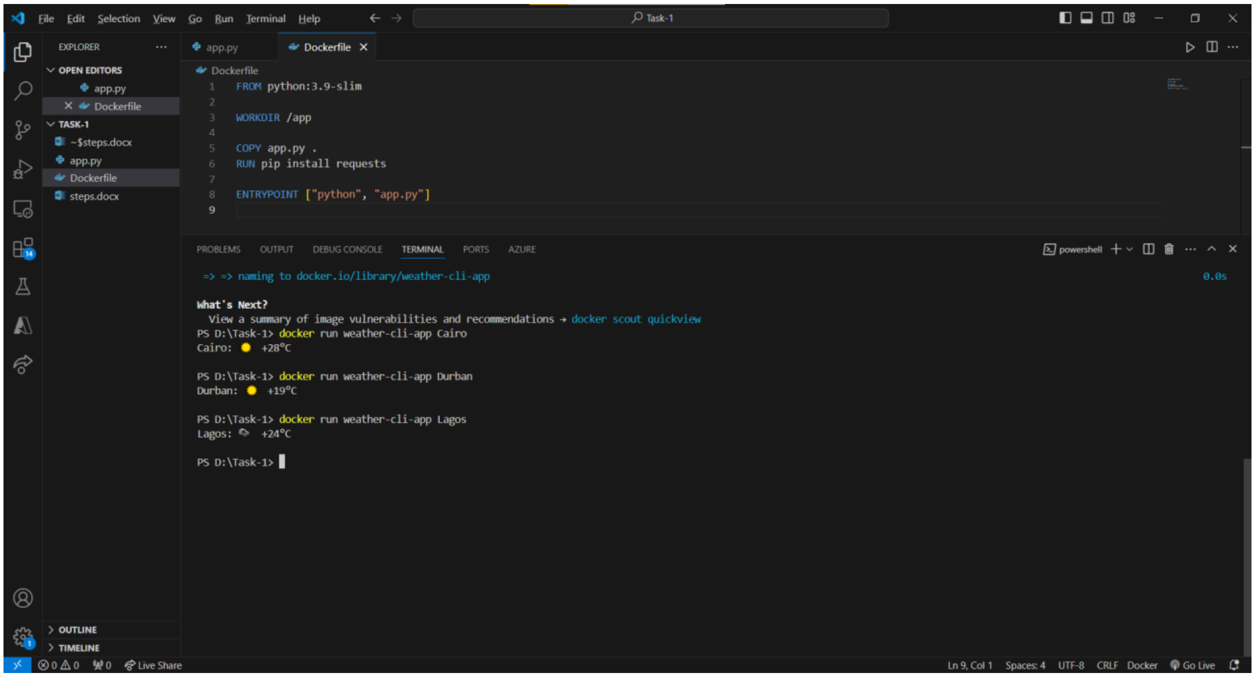
Locally building and testing the docker file for a simple CLI application.


File Edit Selection View Go Run Terminal Help
Task-1
EXPLORER
OPEN EDITORS
app.py
Dockerfile
TASK-1
~$steps.docx
app.py
Dockerfile
steps.docx
OUTLINE
TIMELINE
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS AZURE
powershell
Live Share
Ln 9, Col 1 Spaces: 4 UTF-8 CRLF Docker Go Live

```
FROM python:3.9-slim

WORKDIR /app

COPY app.py .
RUN pip install requests

ENTRYPOINT ["python", "app.py"]

```

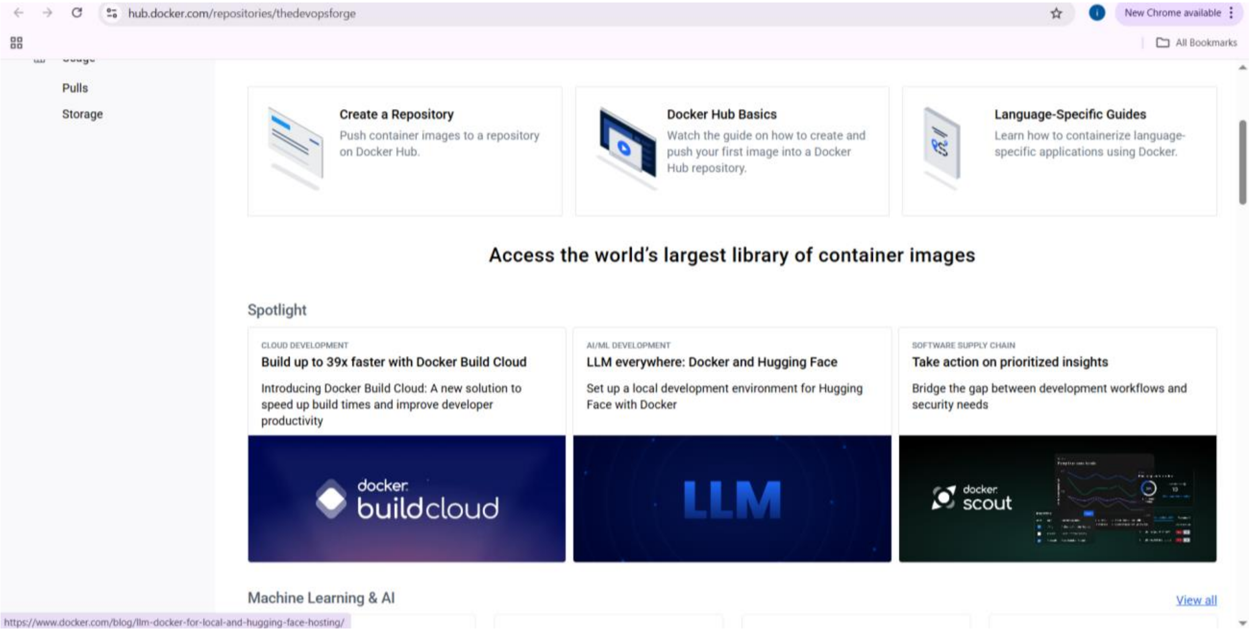
```
PS D:\Task-1>
PS D:\Task-1> docker build -t weather-cli-app .
[+] Building 57.5s (9/9) FINISHED                                                                                docker:default
 => [internal] load build definition from Dockerfile                                                                       0.2s
 => => transferring dockerfile: 153B                                                                                       0.1s
 => [internal] load metadata for docker.io/library/python:3.9-slim                                                         4.5s
 => [internal] load .dockerignore                                                                                          0.1s
 => => transferring context: 2B                                                                                            0.0s
 => [1/4] FROM docker.io/library/python:3.9-slim@sha256:a40cf9eba2c3ed9226afa9ace504f07ad30fe831343bb1c69f7a6707aadb7c21   43.5s
 => => resolve docker.io/library/python:3.9-slim@sha256:a40cf9eba2c3ed9226afa9ace504f07ad30fe831343bb1c69f7a6707aadb7c21    0.0s
 => => sha256:dad67da3f26bce15939543965e09c4059533b025f707aad72ed3d3f3a09c66f8 28.23MB / 28.23MB                          37.6s
 => => sha256:20a97c0d8fc11f8337ff080be3f192c7211a0b7d1e6b886d6d2cff6674761652 3.51MB / 3.51MB                            11.5s
 => => sha256:cd1e1b7e12d38cac4095e7ea4f161334542f130d381d6ef2013fa1ac01b4b6b0 14.94MB / 14.94MB                          24.9s
 => => sha256:a40cf9eba2c3ed9226afa9ace504f07ad30fe831343bb1c69f7a6707aadb7c21 10.41kB / 10.41kB                           0.0s
 => => sha256:78cf9008e07b75b10639f04d47f64ee5a0e65ae794e704123462a0aea0bd4e68 1.75kB / 1.75kB                             0.0s
 => => sha256:07f17bb34a51732d91685dea8f43319a3799414e49e54b6b25fc8985debe91b6 5.29kB / 5.29kB                             0.0s
 => => sha256:ea13ebdb5390b4e3fa5651d1daf14e6756a134f9a168fbedde44f02b1cee5fa8 250B / 250B                                12.2s
 => => extracting sha256:dad67da3f26bce15939543965e09c4059533b025f707aad72ed3d3f3a09c66f8                                  3.3s
 => => extracting sha256:20a97c0d8fc11f8337ff080be3f192c7211a0b7d1e6b886d6d2cff6674761652                                  0.3s
 => => extracting sha256:cd1e1b7e12d38cac4095e7ea4f161334542f130d381d6ef2013fa1ac01b4b6b0                                  1.4s
 => [internal] load build context                                                                                          0.1s
 => => transferring context: 465B                                                                                          0.0s
 => [3/4] COPY app.py .                                                                                                    0.1s
 => [4/4] RUN pip install requests                                                                                         8.5s
 => => exporting layers                                                                                                    0.2s
 => => writing image sha256:f0b5c3256b6e60c34adde66a206d626cc6f0d2d599dd6b01519f1b40fac9cf84                               0.0s
 => => naming to docker.io/library/weather-cli-app                                                                         0.0s
```


File Edit Selection View Go Run Terminal Help
Task-1
EXPLORER
OPEN EDITORS
app.py
Dockerfile
TASK-1
~$steps.docx
app.py
Dockerfile
steps.docx
OUTLINE
TIMELINE
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS AZURE
powershell
Live Share
Ln 9, Col 1 Spaces: 4 UTF-8 CRLF Docker Go Live

```
FROM python:3.9-slim

WORKDIR /app

COPY app.py .
RUN pip install requests

ENTRYPOINT ["python", "app.py"]

```

```
 => => naming to docker.io/library/weather-cli-app                                                                         0.0s

What's Next?
  View a summary of image vulnerabilities and recommendations → docker scout quickview
PS D:\Task-1> docker run weather-cli-app Cairo
Cairo: ☀️  +28°C

PS D:\Task-1> docker run weather-cli-app Durban
Durban: ☀️  +19°C

PS D:\Task-1> docker run weather-cli-app Lagos
Lagos: ⛅  +24°C

PS D:\Task-1> █
```

Creating public repository on DockerHub.


hub.docker.com/repositories/thedevopsforge
New Chrome available
All Bookmarks
Pulls
Storage
View all
https://www.docker.com/blog/llm-docker-for-local-and-hugging-face-hosting/
docker buildcloud
LLM
docker scout

Create a Repository
Push container images to a repository on Docker Hub.

Docker Hub Basics
Watch the guide on how to create and push your first image into a Docker Hub repository.

Language-Specific Guides
Learn how to containerize language-specific applications using Docker.

Access the world's largest library of container images

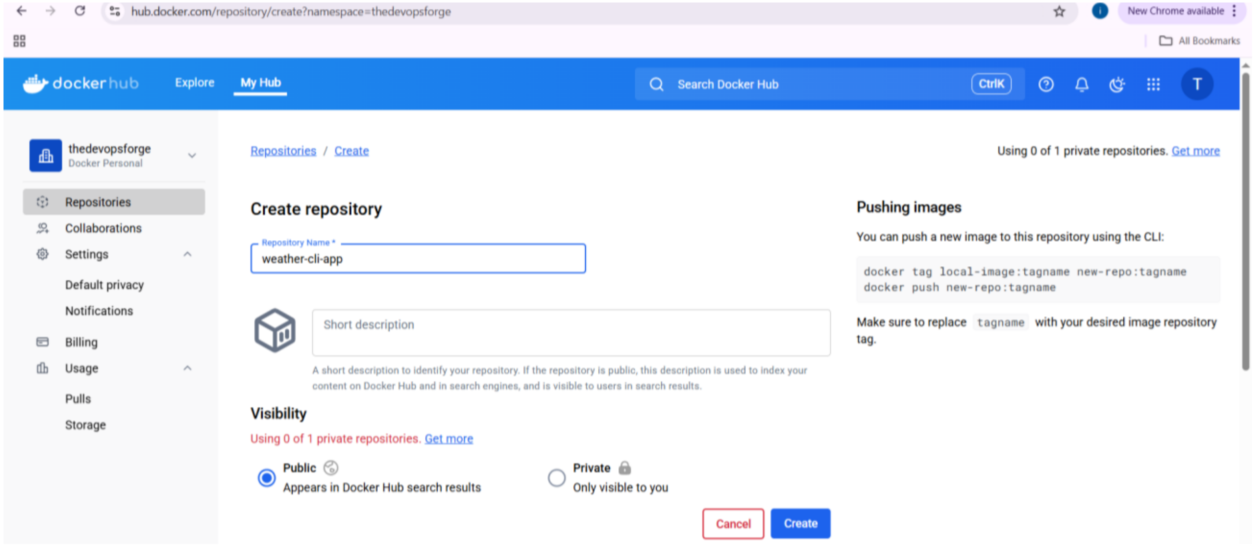
Spotlight

CLOUD DEVELOPMENT
Build up to 39x faster with Docker Build Cloud
Introducing Docker Build Cloud: A new solution to speed up build times and improve developer productivity

AI/ML DEVELOPMENT
LLM everywhere: Docker and Hugging Face
Set up a local development environment for Hugging Face with Docker

SOFTWARE SUPPLY CHAIN
Take action on prioritized insights
Bridge the gap between development workflows and security needs

Machine Learning & AI



Using 0 of 1 private repositories. Get more

Create repository

Repository Name *: weather-cli-app

Short description

A short description to identify your repository. If the repository is public, this description is used to index your content on Docker Hub and in search results.

Visibility

Using 0 of 1 private repositories. Get more

● Public — Appears in Docker Hub search results

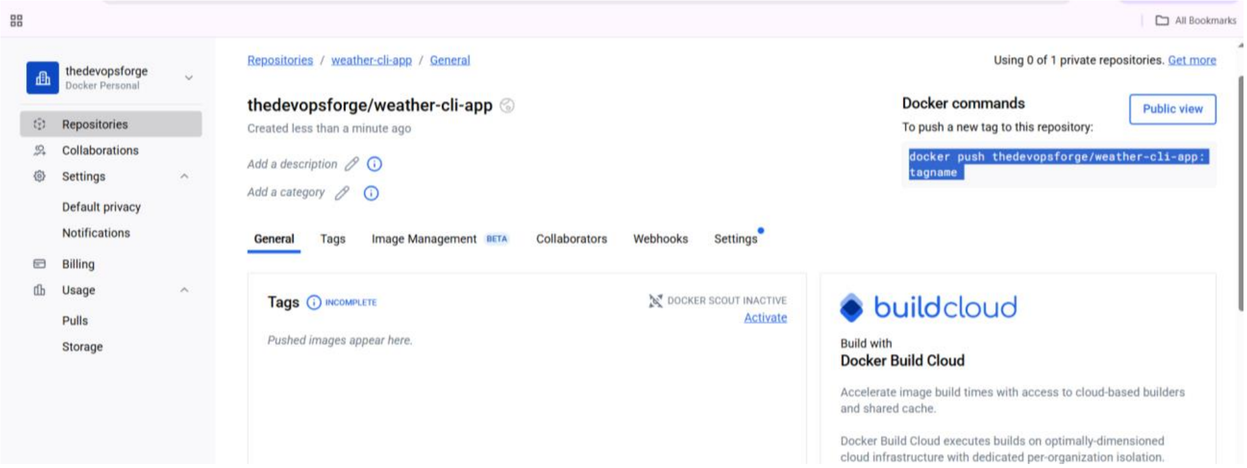
○ Private — Only visible to you

Pushing images

You can push a new image to this repository using the CLI:

```
docker tag local-image:tagname new-repo:tagname
docker push new-repo:tagname
```

Make sure to replace `tagname` with your desired image repository tag.



Using 0 of 1 private repositories. Get more

thedevopsforge/weather-cli-app

Created less than a minute ago

Add a description

Add a category

Docker commands

To push a new tag to this repository:

```
docker push thedevopsforge/weather-cli-app:tagname
```

Tags

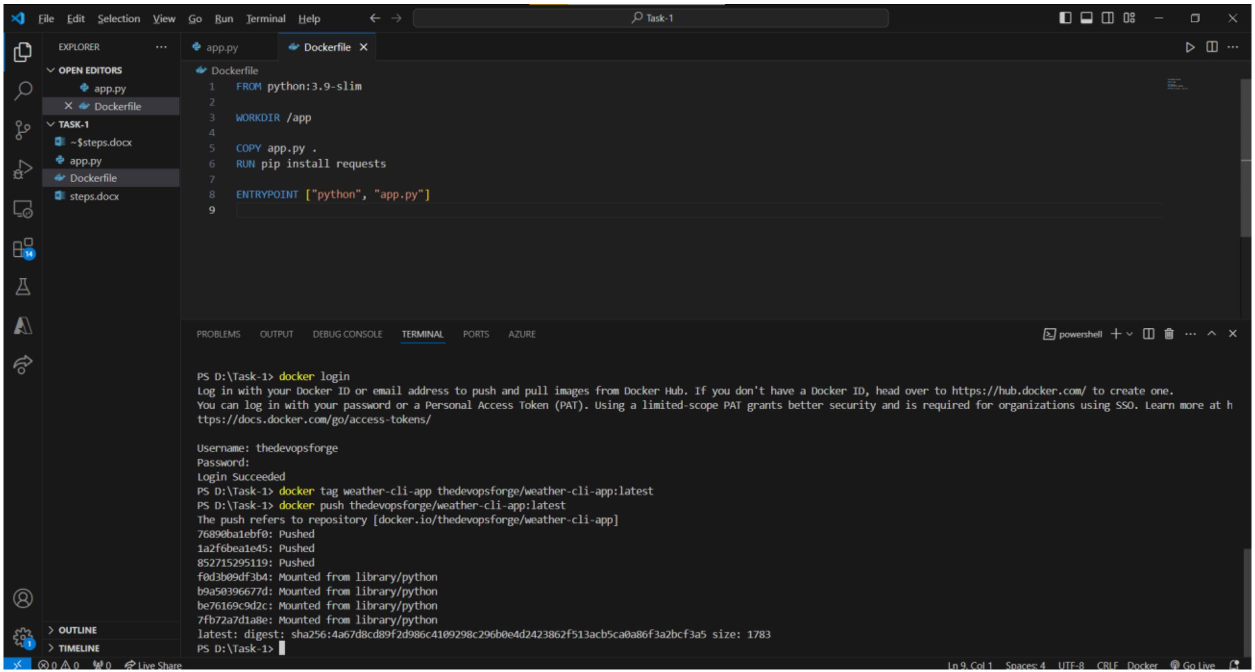
Pushed images appear here.

Build with
Docker Build Cloud

Accelerate image build times with access to cloud-based builders and shared cache.

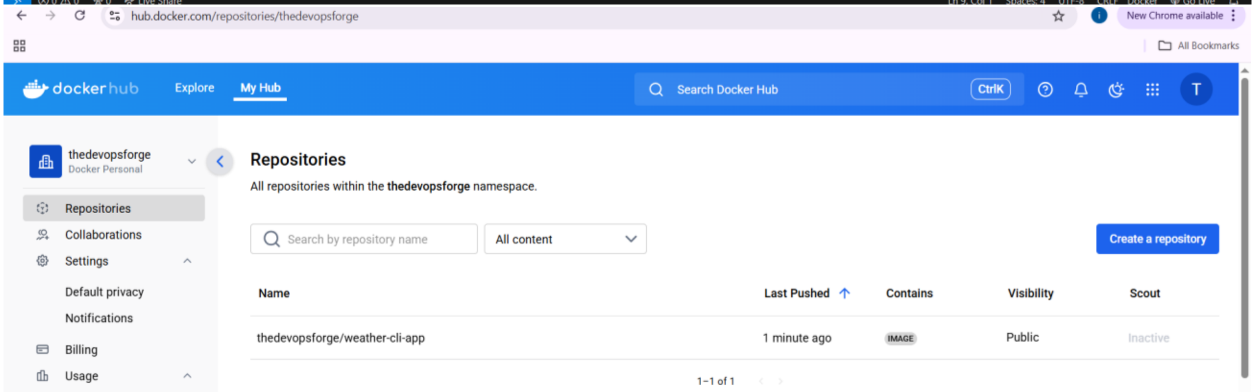
Docker Build Cloud executes builds on optimally-dimensioned cloud infrastructure with dedicated per-organization isolation.

Tagging and pushing the image from own PC to DockerHub.


File Edit Selection View Go Run Terminal Help
Task-1
EXPLORER
OPEN EDITORS
app.py
Dockerfile
TASK-1
~$steps.docx
app.py
Dockerfile
steps.docx
OUTLINE
TIMELINE
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS AZURE
powershell
Ln 9, Col 1 Spaces: 4 UTF-8 CRLF Docker Go Live

```dockerfile
FROM python:3.9-slim

WORKDIR /app

COPY app.py .
RUN pip install requests

ENTRYPOINT ["python", "app.py"]
```

```
PS D:\Task-1> docker login
Log in with your Docker ID or email address to push and pull images from Docker Hub. If you don't have a Docker ID, head over to https://hub.docker.com/ to create one.
You can log in with your password or a Personal Access Token (PAT). Using a limited-scope PAT grants better security and is required for organizations using SSO. Learn more at h
ttps://docs.docker.com/go/access-tokens/

Username: thedevopsforge
Password:
Login Succeeded
PS D:\Task-1> docker tag weather-cli-app thedevopsforge/weather-cli-app:latest
PS D:\Task-1> docker push thedevopsforge/weather-cli-app:latest
The push refers to repository [docker.io/thedevopsforge/weather-cli-app]
76890ba1ebf0: Pushed
1a2f6bea1e45: Pushed
852715295119: Pushed
f0d3b09df3b4: Mounted from library/python
b9a50396677d: Mounted from library/python
be76169c9d2c: Mounted from library/python
7fb72a7d1a8e: Mounted from library/python
latest: digest: sha256:4a67d8cd89f2d986c4109298c296b0e4d2423862f513acb5ca0a86f3a2bcf3a5 size: 1783
PS D:\Task-1>
```



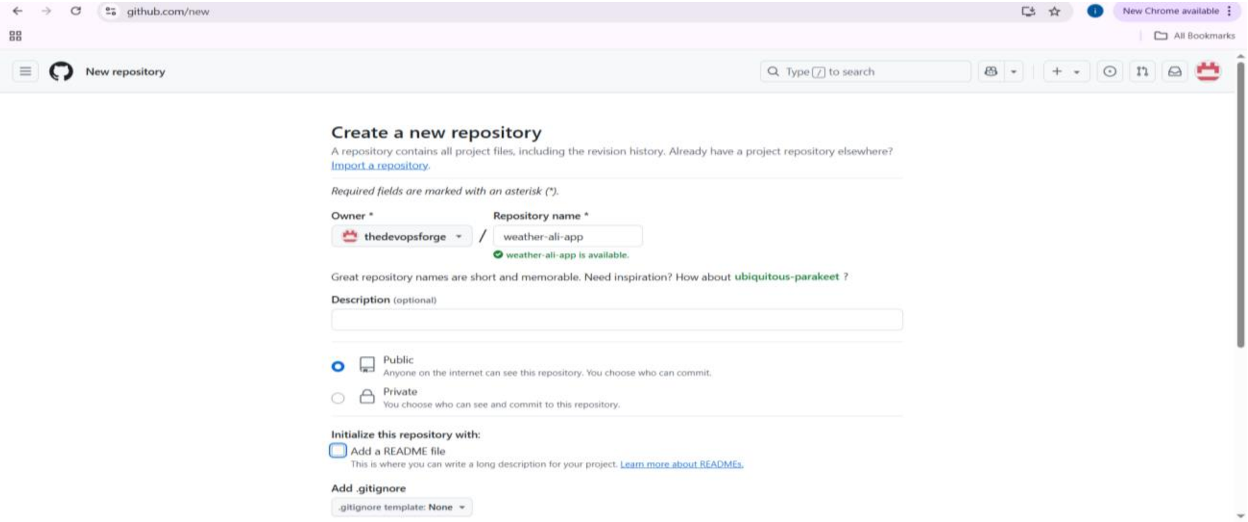
Repositories

All repositories within the **thedevopsforge** namespace.

Name	Last Pushed	Contains	Visibility	Scout
thedevopsforge/weather-cli-app	1 minute ago	IMAGE	Public	Inactive

1–1 of 1

Creating public GitHub repository.



Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? Import a repository.

Required fields are marked with an asterisk (*).

Owner * thedevopsforge / Repository name * weather-ali-app

weather-ali-app is available.

Great repository names are short and memorable. Need inspiration? How about ubiquitous-parakeet ?

Description (optional)

● Public
Anyone on the internet can see this repository. You choose who can commit.

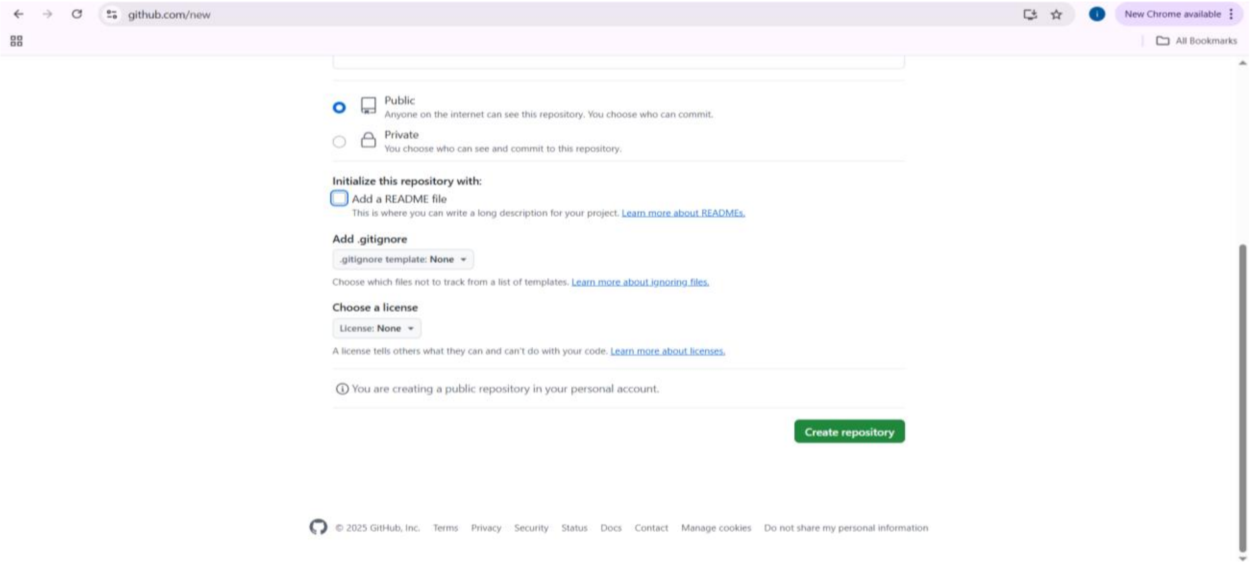
○ Private
You choose who can see and commit to this repository.

Initialize this repository with:

□ Add a README file
This is where you can write a long description for your project. Learn more about READMEs.

Add .gitignore

.gitignore template: None



github.com/new

● Public
Anyone on the internet can see this repository. You choose who can commit.

○ Private
You choose who can see and commit to this repository.

Initialize this repository with:

□ Add a README file
This is where you can write a long description for your project. Learn more about READMEs.

Add .gitignore

.gitignore template: None

Choose which files not to track from a list of templates. Learn more about ignoring files.

Choose a license

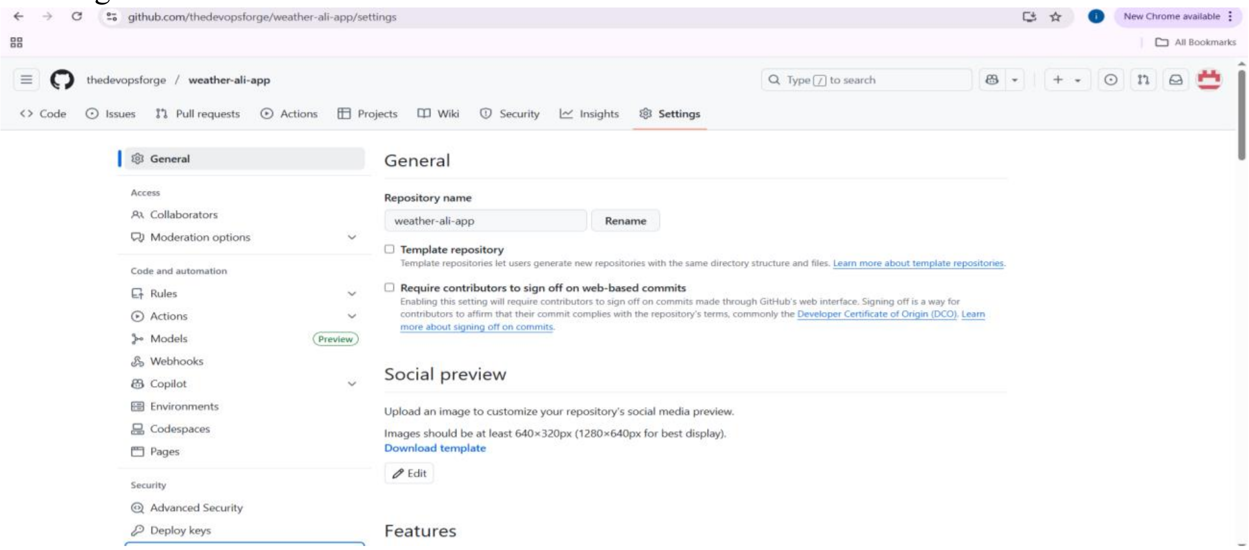
License: None

A license tells others what they can and can't do with your code. Learn more about licenses.

You are creating a public repository in your personal account.

© 2025 GitHub, Inc. Terms Privacy Security Status Docs Contact Manage cookies Do not share my personal information

Creating GitHub secrets.



github.com/thedevopsforge/weather-ali-app/settings

General

Repository name

weather-ali-app

□ Template repository
Template repositories let users generate new repositories with the same directory structure and files. Learn more about template repositories.

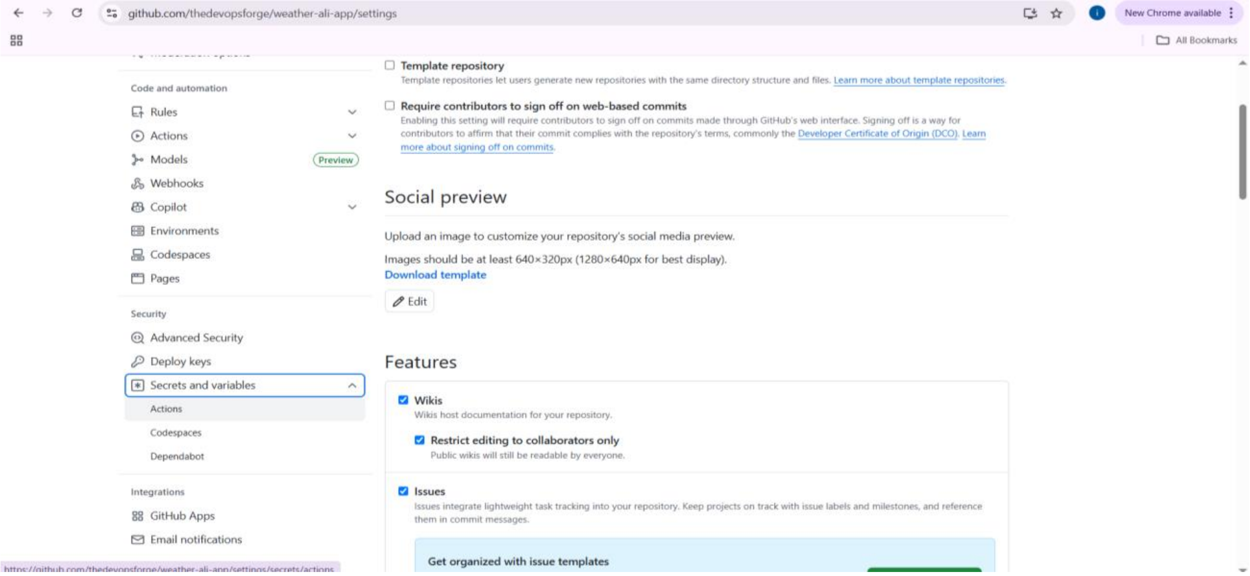
□ Require contributors to sign off on web-based commits
Enabling this setting will require contributors to sign off on commits made through GitHub's web interface. Signing off is a way for contributors to affirm that their commit complies with the repository's terms, commonly the Developer Certificate of Origin (DCO). Learn more about signing off on commits.

Social preview

Upload an image to customize your repository's social media preview.

Images should be at least 640×320px (1280×640px for best display).
Download template

Features



github.com/thedevopsforge/weather-ali-app/settings

□ Template repository
Template repositories let users generate new repositories with the same directory structure and files. Learn more about template repositories.

□ Require contributors to sign off on web-based commits
Enabling this setting will require contributors to sign off on commits made through GitHub's web interface. Signing off is a way for contributors to affirm that their commit complies with the repository's terms, commonly the Developer Certificate of Origin (DCO). Learn more about signing off on commits.

Social preview

Upload an image to customize your repository's social media preview.

Images should be at least 640×320px (1280×640px for best display).
Download template

Features

☑ Wikis
Wikis host documentation for your repository.

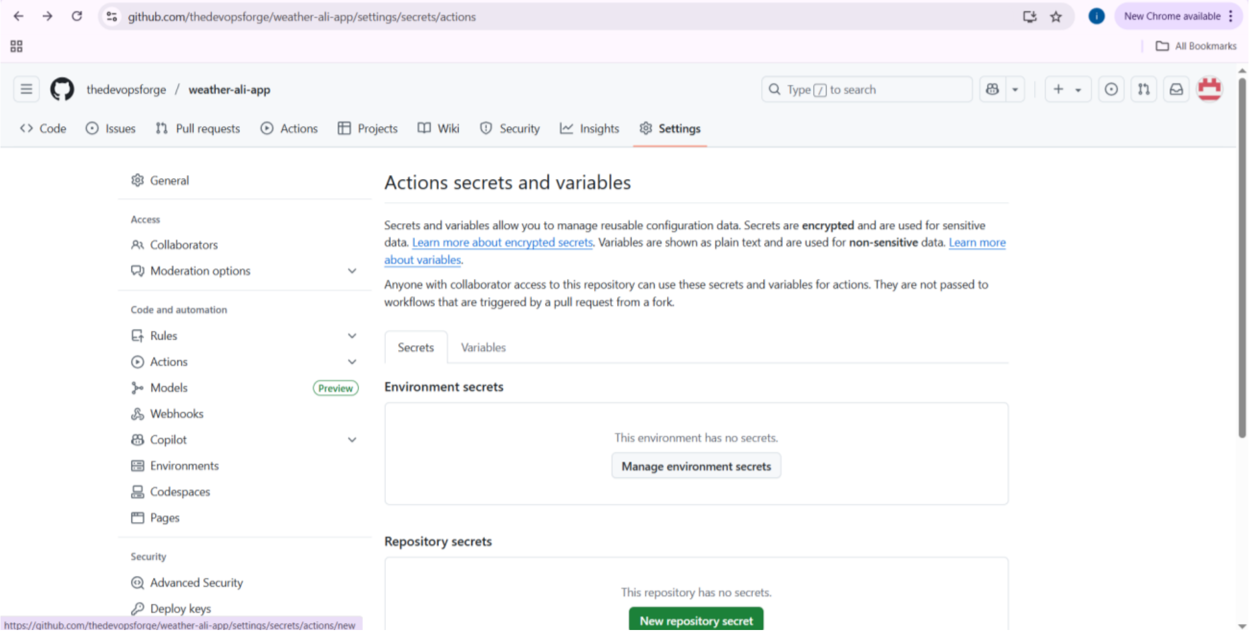
☑ Restrict editing to collaborators only
Public wikis will still be readable by everyone.

☑ Issues
Issues integrate lightweight task tracking into your repository. Keep projects on track with issue labels and milestones, and reference them in commit messages.

Get organized with issue templates

https://github.com/thedevopsforge/weather-ali-app/settings/secrets/actions

(Repository secrets for the particular repo, environment ones are shared between different repos.)



Actions secrets and variables

Secrets and variables allow you to manage reusable configuration data. Secrets are **encrypted** and are used for sensitive data. Learn more about encrypted secrets. Variables are shown as plain text and are used for **non-sensitive** data. Learn more about variables.

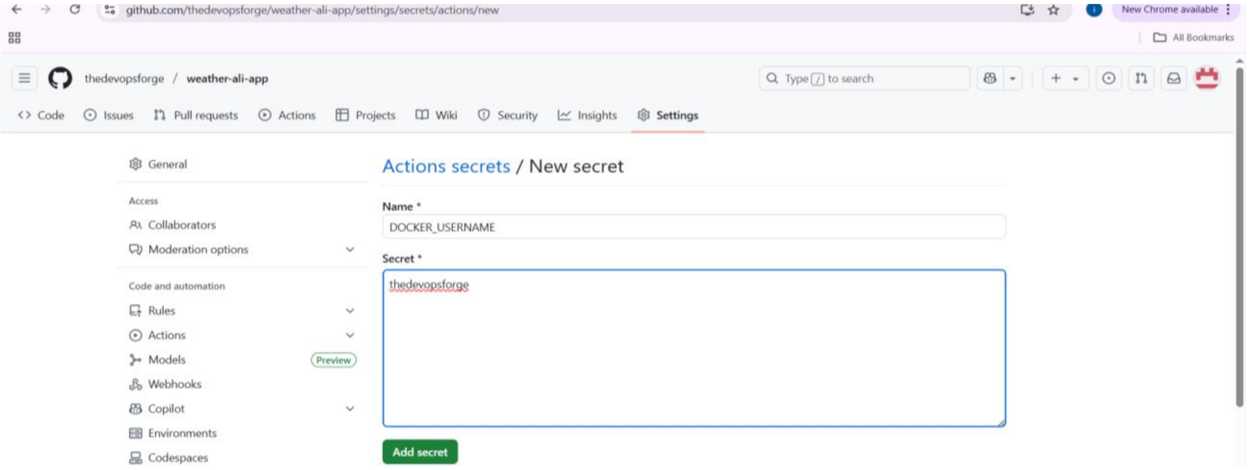
Anyone with collaborator access to this repository can use these secrets and variables for actions. They are not passed to workflows that are triggered by a pull request from a fork.

Environment secrets

This environment has no secrets.

Repository secrets

This repository has no secrets.



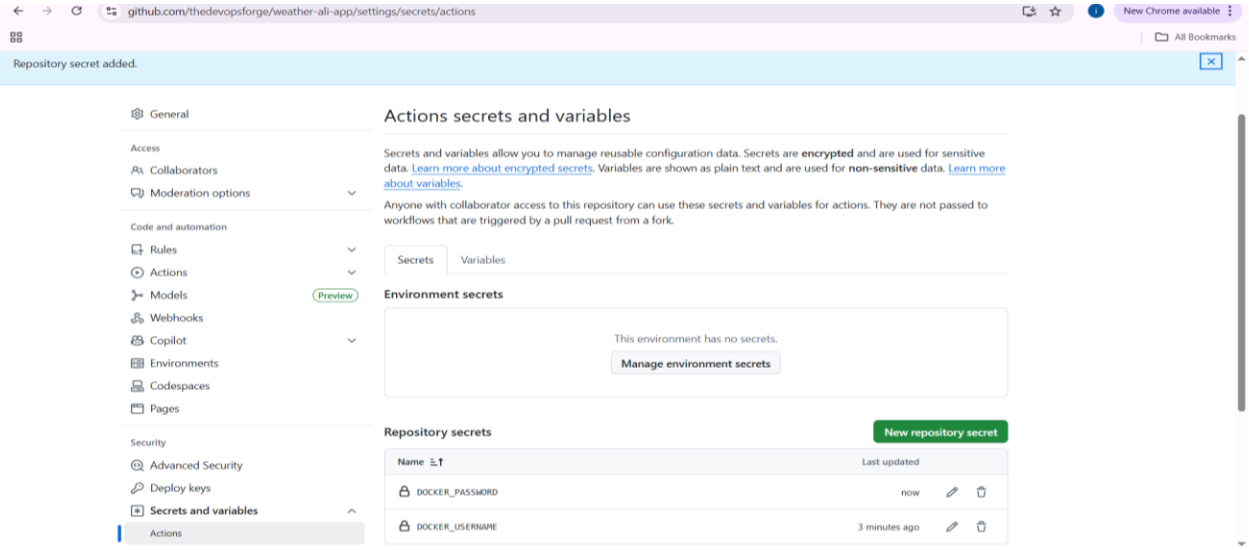
Actions secrets / New secret

Name *

DOCKER_USERNAME

Secret *

thedevopsforge



Repository secret added.

Actions secrets and variables

Secrets and variables allow you to manage reusable configuration data. Secrets are **encrypted** and are used for sensitive data. Learn more about encrypted secrets. Variables are shown as plain text and are used for **non-sensitive** data. Learn more about variables.

Anyone with collaborator access to this repository can use these secrets and variables for actions. They are not passed to workflows that are triggered by a pull request from a fork.

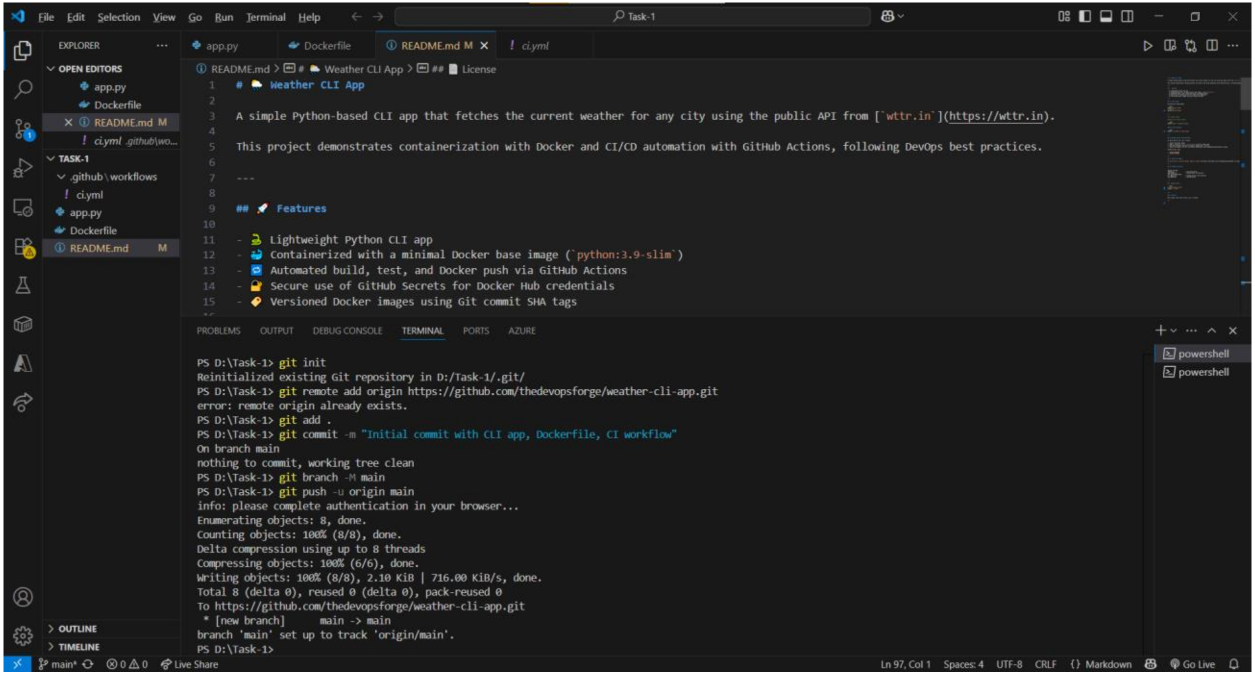
Environment secrets

This environment has no secrets.

Repository secrets

Name	Last updated
DOCKER_PASSWORD	now
DOCKER_USERNAME	3 minutes ago

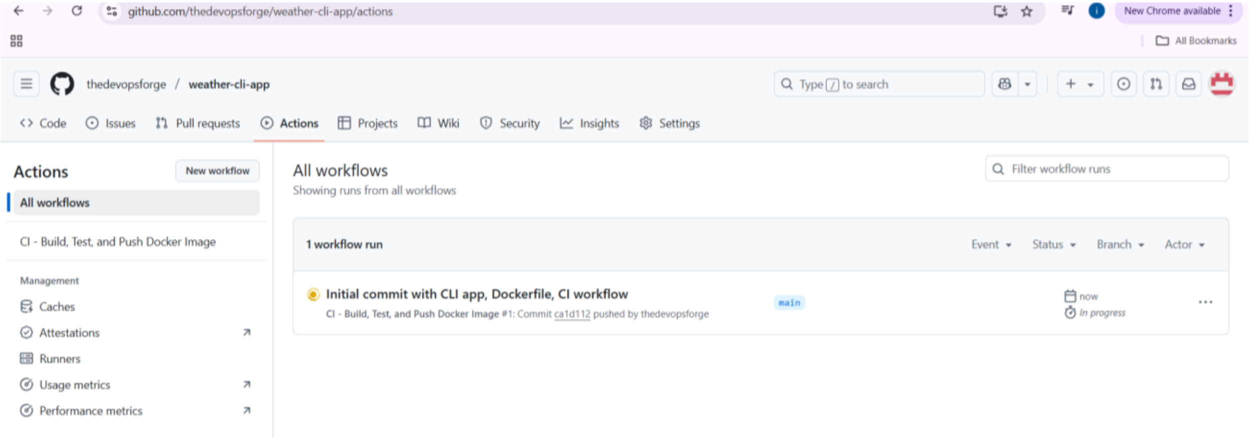
Pushing code from PC to GitHub repository.



```
# 🌥 Weather CLI App

A simple Python-based CLI app that fetches the current weather for any city using the public API from [`wttr.in`](https://wttr.in).

This project demonstrates containerization with Docker and CI/CD automation with GitHub Actions, following DevOps best practices.

---

## 🚀 Features

- 🐍 Lightweight Python CLI app
- 🐳 Containerized with a minimal Docker base image (`python:3.9-slim`)
- 🔁 Automated build, test, and Docker push via GitHub Actions
- 🔐 Secure use of GitHub Secrets for Docker Hub credentials
- 🏷 Versioned Docker images using Git commit SHA tags
```

```
PS D:\Task-1> git init
Reinitialized existing Git repository in D:/Task-1/.git/
PS D:\Task-1> git remote add origin https://github.com/thedevopsforge/weather-cli-app.git
error: remote origin already exists.
PS D:\Task-1> git add .
PS D:\Task-1> git commit -m "Initial commit with CLI app, Dockerfile, CI workflow"
On branch main
nothing to commit, working tree clean
PS D:\Task-1> git branch -M main
PS D:\Task-1> git push -u origin main
info: please complete authentication in your browser...
Enumerating objects: 8, done.
Counting objects: 100% (8/8), done.
Delta compression using up to 8 threads
Compressing objects: 100% (6/6), done.
Writing objects: 100% (8/8), 2.10 KiB | 716.00 KiB/s, done.
Total 8 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/thedevopsforge/weather-cli-app.git
 * [new branch]      main -> main
branch 'main' set up to track 'origin/main'.
PS D:\Task-1>
```

Checking pipeline progress on GitHub via Actions tab.



All workflows

Showing runs from all workflows

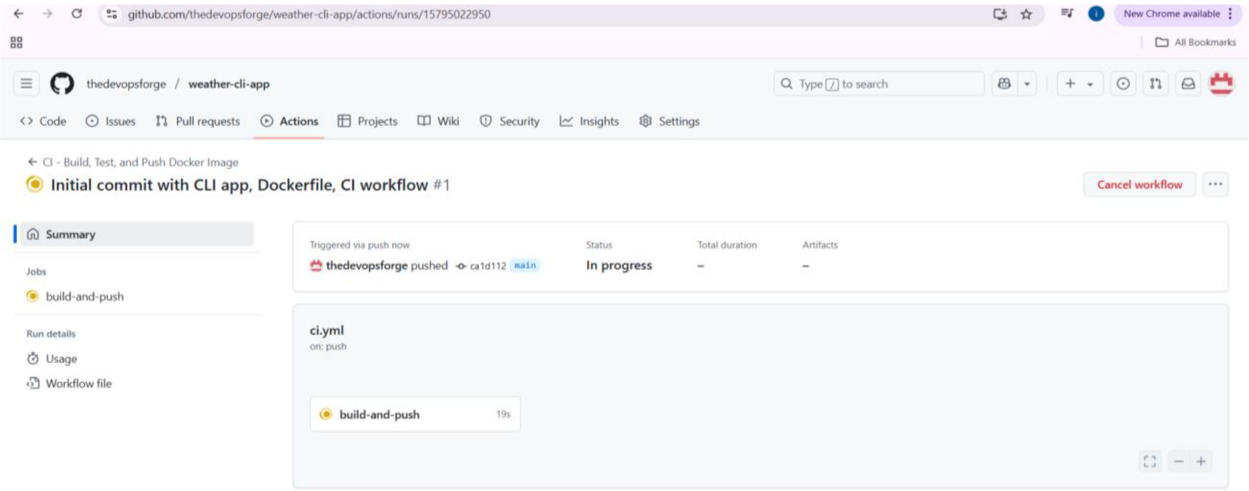
1 workflow run

Initial commit with CLI app, Dockerfile, CI workflow — main

CI - Build, Test, and Push Docker Image #1: Commit ca1d112 pushed by thedevopsforge

now

In progress



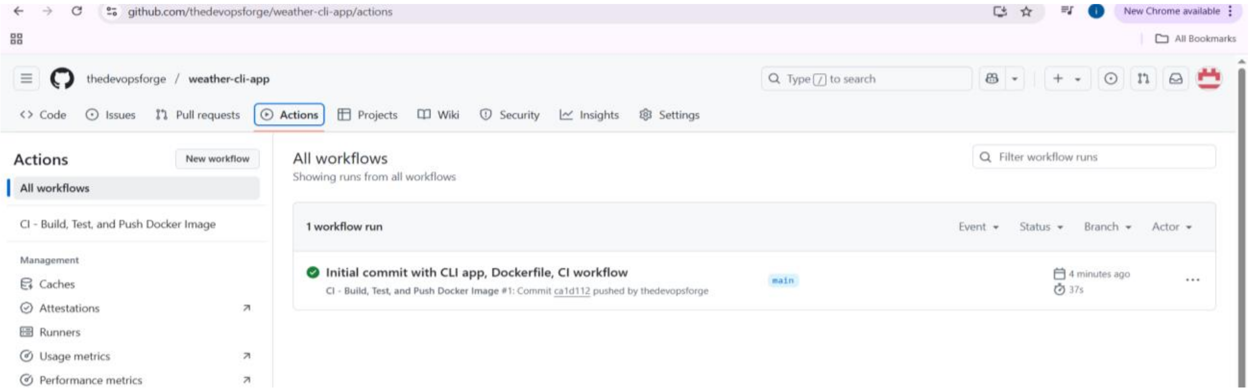
Initial commit with CLI app, Dockerfile, CI workflow #1

Triggered via push now	Status	Total duration	Artifacts
thedevopsforge pushed ca1d112 main	In progress	–	–

ci.yml

on: push

build-and-push 19s



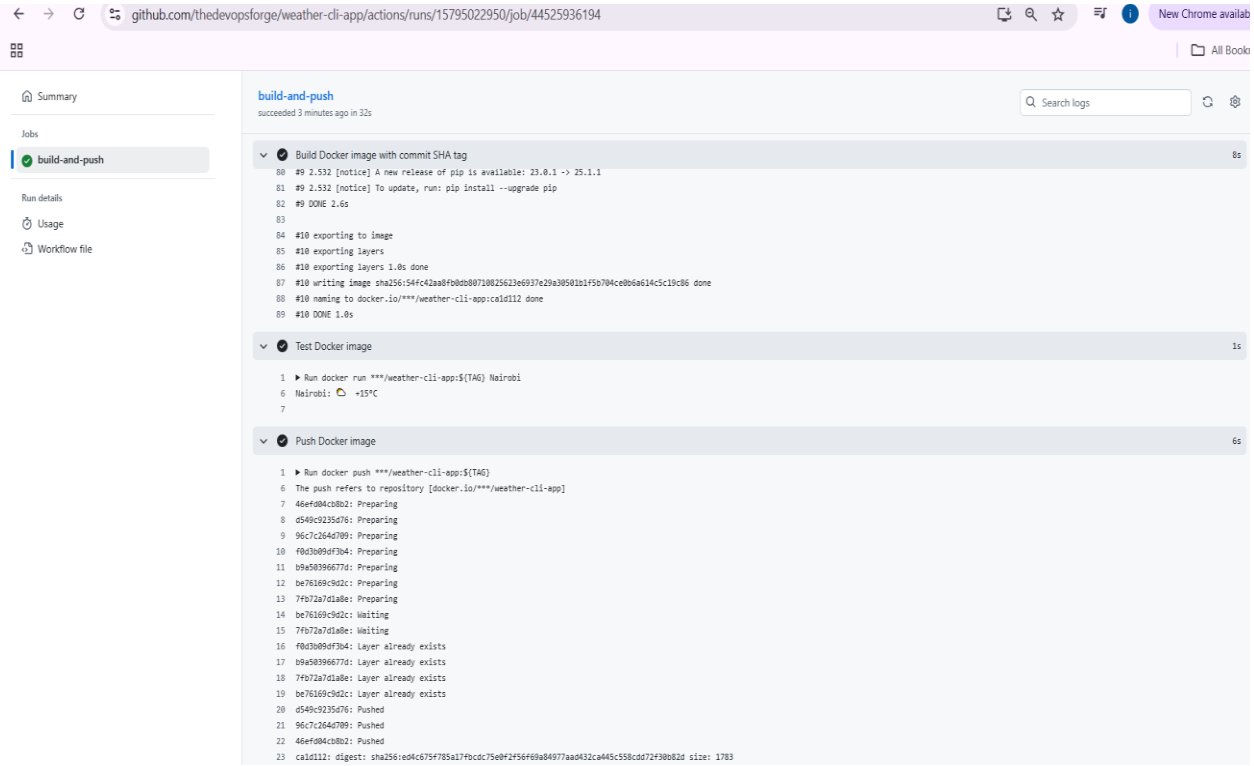
All workflows

Showing runs from all workflows

1 workflow run

✓ Initial commit with CLI app, Dockerfile, CI workflow — main — 4 minutes ago — 37s

CI - Build, Test, and Push Docker Image #1: Commit ca1d112 pushed by thedevopsforge



build-and-push

succeeded 3 minutes ago in 32s

✓ Build Docker image with commit SHA tag — 8s

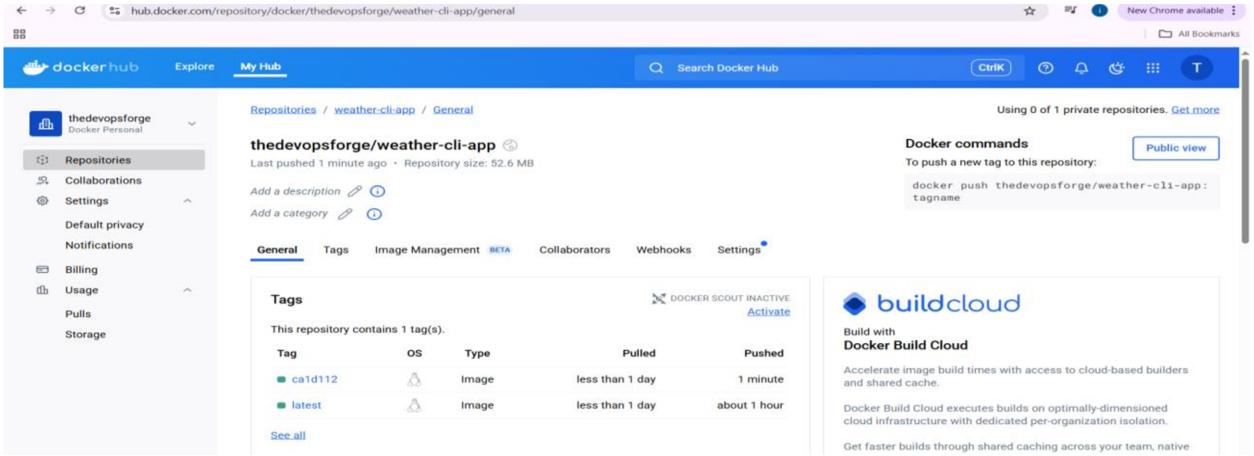
```
#9 2.532 [notice] A new release of pip is available: 23.0.1 -> 25.1.1
#9 2.532 [notice] To update, run: pip install --upgrade pip
#9 DONE 2.6s

#10 exporting to image
#10 exporting layers
#10 exporting layers 1.0s done
#10 writing image sha256:54fc42aa8fb0db80710825623e6937e29a30501b1f5b704ce0b6a614c5c19c86 done
#10 naming to docker.io/***/weather-cli-app:ca1d112 done
#10 DONE 1.0s
```

✓ Test Docker image — 1s

```
▶ Run docker run ***/weather-cli-app:${TAG} Nairobi
Nairobi: ⛅  +15°C

```

✓ Push Docker image — 6s

```
▶ Run docker push ***/weather-cli-app:${TAG}
The push refers to repository [docker.io/***/weather-cli-app]
46efd04cb8b2: Preparing
d549c9235d76: Preparing
96c7c264d709: Preparing
f0d3b09df3b4: Preparing
b9a50396677d: Preparing
be76169c9d2c: Preparing
7fb72a7d1a8e: Preparing
be76169c9d2c: Waiting
7fb72a7d1a8e: Waiting
f0d3b09df3b4: Layer already exists
b9a50396677d: Layer already exists
7fb72a7d1a8e: Layer already exists
be76169c9d2c: Layer already exists
d549c9235d76: Pushed
96c7c264d709: Pushed
46efd04cb8b2: Pushed
ca1d112: digest: sha256:ed4c675f785a17fbcdc75e0f2f56f69a84977aad432ca445c558cdd72f30b82d size: 1783
```



Using 0 of 1 private repositories. Get more

thedevopsforge/weather-cli-app

Last pushed 1 minute ago • Repository size: 52.6 MB

Add a description

Add a category

Docker commands

To push a new tag to this repository:

```
docker push thedevopsforge/weather-cli-app:tagname
```

Tags

This repository contains 1 tag(s).

Tag	OS	Type	Pulled	Pushed
ca1d112		Image	less than 1 day	1 minute
latest		Image	less than 1 day	about 1 hour

Build with

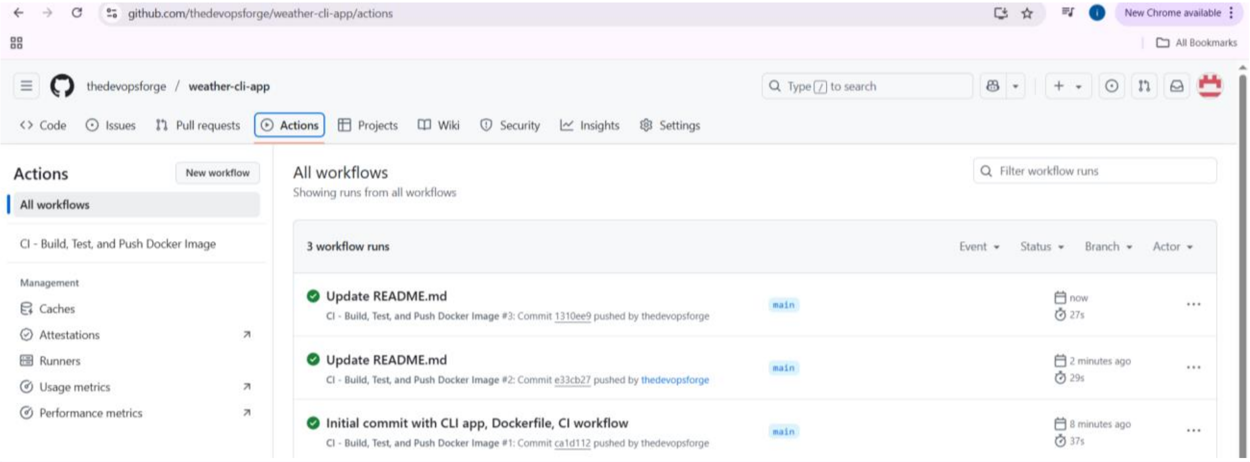
Docker Build Cloud

Accelerate image build times with access to cloud-based builders and shared cache.

Docker Build Cloud executes builds on optimally-dimensioned cloud infrastructure with dedicated per-organization isolation.

Get faster builds through shared caching across your team, native

Output of third run of pipeline, upon push on main.



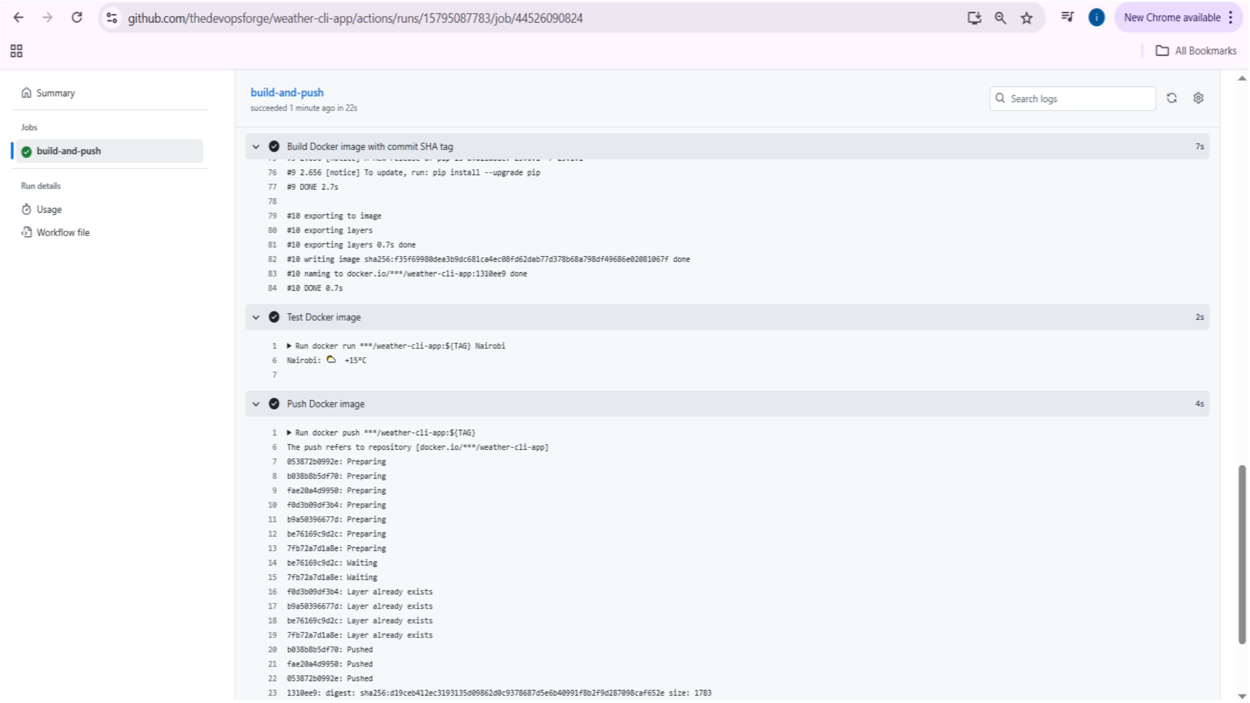
All workflows
Showing runs from all workflows

3 workflow runs

✓ Update README.md
CI - Build, Test, and Push Docker Image #3: Commit 1310ee9 pushed by thedevopsforge — main — now — 27s

✓ Update README.md
CI - Build, Test, and Push Docker Image #2: Commit e33cb27 pushed by thedevopsforge — main — 2 minutes ago — 29s

✓ Initial commit with CLI app, Dockerfile, CI workflow
CI - Build, Test, and Push Docker Image #1: Commit ca1d112 pushed by thedevopsforge — main — 8 minutes ago — 37s



build-and-push
succeeded 1 minute ago in 22s

✓ Build Docker image with commit SHA tag — 7s

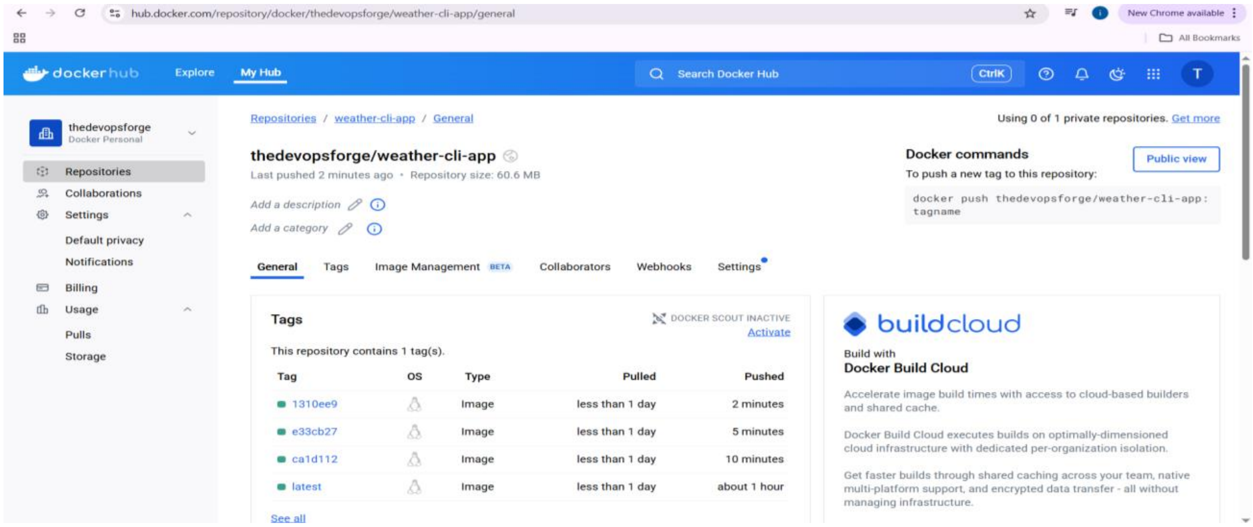
```
#9 2.656 [notice] To update, run: pip install --upgrade pip
#9 DONE 2.7s

#10 exporting to image
#10 exporting layers
#10 exporting layers 0.7s done
#10 writing image sha256:f35f69980dea3b9dc681ca4ec08fd62dab77d378b68a798df49686e02081067f done
#10 naming to docker.io/***/weather-cli-app:1310ee9 done
#10 DONE 0.7s
```

✓ Test Docker image — 2s

```
▶ Run docker run ***/weather-cli-app:${TAG} Nairobi
Nairobi: ⛅  +15°C

```

✓ Push Docker image — 4s

```
▶ Run docker push ***/weather-cli-app:${TAG}
The push refers to repository [docker.io/***/weather-cli-app]
053872b0992e: Preparing
b038b8b5df70: Preparing
fae20a4d9950: Preparing
f0d3b09df3b4: Preparing
b9a50396677d: Preparing
be76169c9d2c: Preparing
7fb72a7d1a8e: Preparing
be76169c9d2c: Waiting
7fb72a7d1a8e: Waiting
f0d3b09df3b4: Layer already exists
b9a50396677d: Layer already exists
be76169c9d2c: Layer already exists
7fb72a7d1a8e: Layer already exists
b038b8b5df70: Pushed
fae20a4d9950: Pushed
053872b0992e: Pushed
1310ee9: digest: sha256:d19ceb412ec3193135d09862d0c9378687d5e6b40991f8b2f9d287098caf652e size: 1783
```



Repositories / weather-cli-app / General

Using 0 of 1 private repositories. Get more

thedevopsforge/weather-cli-app

Last pushed 2 minutes ago · Repository size: 60.6 MB

Add a description

Add a category

Docker commands

To push a new tag to this repository:

```
docker push thedevopsforge/weather-cli-app:tagname
```

Tags

This repository contains 1 tag(s).

Tag	OS	Type	Pulled	Pushed
1310ee9		Image	less than 1 day	2 minutes
e33cb27		Image	less than 1 day	5 minutes
ca1d112		Image	less than 1 day	10 minutes
latest		Image	less than 1 day	about 1 hour

See all

Build with
Docker Build Cloud

Accelerate image build times with access to cloud-based builders and shared cache.

Docker Build Cloud executes builds on optimally-dimensioned cloud infrastructure with dedicated per-organization isolation.

Get faster builds through shared caching across your team, native multi-platform support, and encrypted data transfer - all without managing infrastructure.